DPLR1\1029

Evaluating an important biodiversity area in Gibraltar: Windmill Hill Flats

WHF (0.19 km2) is a largely undeveloped, flat open space occupied by garrigue, pseudosteppe and vegetated sea cliffs. These habitats hold a distinctive community of plants, some only found at this location. The site is a major stronghold for resident and wintering birds and an important stopover for migrant passerines. The spread of invasive plants and mammals is seriously affecting the area.

We will employ a rapid assessment approach to determine the flora and fauna in the WHF and evaluate the threats of invasive mammals (feral cats and black rats) and anthropogenic pressures to resident species, communities and ecosystems. Based on these results, we will study the reversibility of these impacts and ascertain the prospect of re-establishing lost species to the area using the Iberian Ocellated Lizard (IOL) as a flagship case study. Our network of in-territory stakeholders and international collaborators will advise us technically and guide the project's progress. We will increase local expertise by providing training on biodiversity survey techniques and strengthen community involvement through the participation of local NGOs and general public.

Project activities:

A1: Compile and assess existing data to determine any gaps of information, including existing biological surveys.

Output: Biological databases created and stored.

A2: Map main habitats in the study area from aerial photographs and ground surveys. Assess native and invasive flora using quadrats within each habitat.

Output: Maps, descriptions of vegetation types and checklist of flora, with accompanying voucher specimens. Targeted survey results of habitats that support threatened or endemic plant species. Abundance of invasive plants used to correlate with native plant, invertebrate diversity and abundance.

A3: Record abundance and distribution of key native faunal groups within each habitat type: gastropod molluscs, reptiles, butterflies, ground insects (beetles, ants). These groups will be surveyed using quadrat counts, bitumen felt squares, line transects and pitfall traps, respectively. Bird abundance and diversity (including Gibraltar's national bird, the Barbary partridge) will be monitored using line transects and point counts within the study area.

Output: Species lists, distribution maps and abundance measures of main native faunal groups.

A4: Determine invasive mammals' numbers and distribution. We will deploy a grid of 20 camera traps throughout to cover the WHF during the project period.

Output: Distribution maps of cats and rats. Relative abundance of rats and cats within habitats. Videos, photographs.

A5: Technical meetings. Engage project collaborators in planning, implementation and local needs of the project. We will organise two general meetings involving all collaborators and two smaller meetings to discuss specific actions and progress on biodiversity surveys and invasives monitoring. We will explore the prospect of reintroducing lost species and discuss procurement of founder animals to captive breed or translocate in WHF.

Output: Meeting reports and action plans produced.

A6: Capacity building. Training and upskilling of personnel from DESCCH and GBG in biodiversity survey techniques. Training will be undertaken by the Project Conservation Officer. Three training sessions will be delivered at the start, middle and end of project.

Output: Training materials produced, and 30 conservation officers trained.

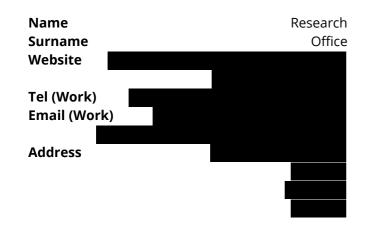
A7: Community outreach. Education and participatory initiatives to improve knowledge and understanding of the project in Gibraltar. Local NGOs and schools will be invited to attend discussions.

Output: Two community meetings (target: 150 attendees), 1 public lecture, 4 news items in local media (TV/radio/press), project website operational.

A8: Site management plan review. We will review the management plan for WHF and propose updates for wildlife habitat management objectives and expectations, where applicable. Buy-in for future activities will be sought from the Gibraltar Government, e.g. support for a Darwin Plus main application in 2023.

Output: Management plan update proposal circulated among in-territory stakeholders.

PRIMARY APPLICANT DETAILS



CONTACT DETAILS



DPLR1\1029

Evaluating an important biodiversity area in Gibraltar: Windmill Hill Flats

Section 1 - Project Title & Contact Details

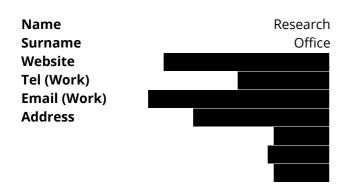
Q1. Project Title

Evaluating an important biodiversity area in Gibraltar: Windmill Hill Flats

Q2. Please select whether you are applying as an organisation or as an individual (Guidance section 3 and Guidance Glossary)

 \odot Organisation

PRIMARY APPLICANT DETAILS



CONTACT DETAILS



GMS ORGANISATION

Туре	Organisation
Name	University of Gibraltar
Phone (Work)	
Email (Work)	
Address	

Section 2 - Overseas Territory(ies)

Q3. Overseas Territory (Guidance section 1.3):

Which UK Overseas Territory(ies) will your project be working in? Please note that in case of a non-permanent resident population you need to demonstrate a clear, meaningful, long-term link to the territory.

🗹 Gibraltar

* if you have indicated a territory group with an asterisk, please give detail on which territories you are working on here:

No Response

In addition to the UKOT(s) you have indicated, will your project directly benefit any other UK OT(s) or country(ies)?

⊙ No

Section 3 - Project Partners

Q4. Project partners (Guidance section 3.2)

In this section, please give details of all the partners involved (including the Lead Partner) and provide a summary of their roles.

Project Leader name (Guidance section 3.1):	Prof Julia Fa	
Lead Partner name (if applying as an organisation; Guidance section 3.1):	University of Gibraltar	
Lead Partner Website (if applicable):	https://www.unigib.edu.gi	

⊙ Yes

	In-territory partners, Gibraltar:
	HM Department of Environment, Sustainability, Climate Change and Heritage (DESCCH).
	Gibraltar Botanic Gardens (GBG).
	Prof John Cortes, Ecologist and Beacon Professor, University of Gibraltar.
List other partners	In-territory NGOs, Gibraltar:
involved and where are they based (Guidance	Gibraltar Ornithological & Natural History Society (GONHS).
section 3.2):	Save Gibraltar Street Cats (SGSC).
Section 5.2).	The Environmental Safety Group (ESG).
	International collaborators:
	Biogeography, Diversity and Conservation Group, University of Malaga Spain.
	Prof James Russell, Biological Sciences, University of Auckland, New Zealand.
	OT colleagues, Invasive Species Control, Ascension Island.

	 trained environmental officers and Nature Reserve Managers. Stephen Warr (Senior Environment Officer) will be a regular collaborator. GBG. Contributor for building fauna and flora inventories, support for terrestrial ecology with expertise in plants, vertebrates and insects. Dr Keith Bensusan and Dr Rhian Guillem, entomologists with taxonomic and ecological expertise, will provide technical assistance on the ground. Prof John Cortes (personal capacity), specialist in invasive species, reptile and plant ecology, knowledge of local priorities.
Summary of roles and	GONHS. Support for taxonomic identification of plant and animal species.
responsibilities of each partner in the project:	SGSC and ESG. Attend participatory meetings. Support in public outreach.
	Dr Miguel Angel Farfan, Prof Raimundo Real, Dr Antonio Roman, Dr Jesus Olivero, Dr David Romero and Dr Jesus Duarte (University of Malaga, Spain) will assist in ecological assessments, fieldwork, participate in project meetings and training delivery. This team will be crucial to identify populations of lost species in southern Spain as sources of animals to captive breed or translocate in Gibraltar.
	Prof James Russell (University of Auckland, NZ) will advise on invasive species methods and help with analysing project results. James is an advisor to Predator Free New Zealand and Zero Invasive Predators. He has worked on predator-control on islands worldwide and visited Gibraltar previously.
	OT colleagues. We will engage with experts in Ascension Island, to learn from their experience in invasive mammal eradications.
l confirm that all listed partners are aware of this application and have indicated support:	Checked

Attach a Cover Letter for your application (Guidance section 4.2).

- 盘 DPLR1 1029 Biodiversity-WHF Cover-letter
- 菌 13/02/2023
- ③ 10:18:45
- 🗅 pdf 339.01 KB

Section 4 - Project Summary & Description

Q5. Project Summary (Guidance section 3.8)

Please provide a brief summary of your project. This may be used in communication activities and/or published online, if your application is successful.

The Windmill Hill Flats (WHF) area in Gibraltar has suffered biodiversity decline which is likely to be continuing due to the presence of invasive plants and animals, but the actual impact is unknown. This project will conduct ecological surveys to inform best practices to reduce threats, improve ecosystem functioning, increase species diversity and facilitate participatory meetings involving local community and NGOs.

Outcomes will include guidelines for WHF habitat restoration and training of local environment officers in biodiversity survey techniques.

Q6. Description (Guidance section 2.1)

Please provide a description of your project, including:

- the overall objective
- the current situation and the problem the project is trying to address
- what success will look like and how you will measure it

Please be as specific as possible when describing the project, using quantified data and evidence where available. You may wish to consider: what are the specific threats to the environment that the project will attempt to address, and what should we know about these threats? What does your successful project look like? And how will you demonstrate whether and how your project has been successful?

WHF (0.19 km2) is a largely undeveloped, flat open space occupied by garrigue, pseudosteppe and vegetated sea cliffs. These habitats hold a distinctive community of plants, some only found at this location. The site is a major stronghold for resident and wintering birds and an important stopover for migrant passerines. The spread of invasive plants and mammals is seriously affecting the area.

We will employ a rapid assessment approach to determine the flora and fauna in the WHF and evaluate the threats of invasive mammals (feral cats and black rats) and anthropogenic pressures to resident species, communities and ecosystems. Based on these results, we will study the reversibility of these impacts and ascertain the prospect of re-establishing lost species to the area using the Iberian Ocellated Lizard (IOL) as a flagship case study. Our network of in-territory stakeholders and international collaborators will advise us technically and guide the project's progress. We will increase local expertise by providing training on biodiversity survey techniques and strengthen community involvement through the participation of local NGOs and general public.

Project activities:

A1: Compile and assess existing data to determine any gaps of information, including existing biological surveys.

Output: Biological databases created and stored.

A2: Map main habitats in the study area from aerial photographs and ground surveys. Assess native and invasive flora using quadrats within each habitat.

Output: Maps, descriptions of vegetation types and checklist of flora, with accompanying voucher specimens. Targeted survey results of habitats that support threatened or endemic plant species. Abundance of invasive plants used to correlate with native plant, invertebrate diversity and abundance.

A3: Record abundance and distribution of key native faunal groups within each habitat type: gastropod molluscs, reptiles, butterflies, ground insects (beetles, ants). These groups will be surveyed using quadrat counts, bitumen felt squares, line transects and pitfall traps, respectively. Bird abundance and diversity (including Gibraltar's national bird, the Barbary partridge) will be monitored using line transects and point counts within the study area.

Output: Species lists, distribution maps and abundance measures of main native faunal groups.

A4: Determine invasive mammals' numbers and distribution. We will deploy a grid of 20 camera traps throughout to cover the WHF during the project period.

Output: Distribution maps of cats and rats. Relative abundance of rats and cats within habitats. Videos, photographs.

A5: Technical meetings. Engage project collaborators in planning, implementation and local needs of the project. We will organise two general meetings involving all collaborators and two smaller meetings to discuss specific actions and progress on biodiversity surveys and invasives monitoring. We will explore the prospect of reintroducing lost species and discuss procurement of founder animals to captive breed or translocate in WHF.

Output: Meeting reports and action plans produced.

A6: Capacity building. Training and upskilling of personnel from DESCCH and GBG in biodiversity survey techniques. Training will be undertaken by the Project Conservation Officer. Three training sessions will be delivered at the start, middle and end of project.

Output: Training materials produced, and 30 conservation officers trained.

A7: Community outreach. Education and participatory initiatives to improve knowledge and understanding of the project in Gibraltar. Local NGOs and schools will be invited to attend discussions.

Output: Two community meetings (target: 150 attendees), 1 public lecture, 4 news items in local media (TV/radio/press), project website operational.

A8: Site management plan review. We will review the management plan for WHF and propose updates for wildlife habitat management objectives and expectations, where applicable. Buy-in for future activities will be sought from the Gibraltar Government, e.g. support for a Darwin Plus main application in 2023.

Output: Management plan update proposal circulated among in-territory stakeholders.

(Optional) Please upload any additional and supporting materials or files (such as maps of project sites, etc) below. Maximum of 5 pages:

ііі 14/02/2023

③ 09:53:28

pdf 1.43 MB

Section 5 - Project Outcome(s)

Q7. Project Outcome(s) (Guidance section 1.2)

Successful Darwin Plus Local projects must demonstrate measurable outcomes in <u>at least one of the</u> <u>themes</u> of Darwin Plus, either by the end of the project or soon after through a credible plan.

Please tick which theme(s) of Darwin Plus your project underpins:

Checked	Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;
Unchecked	Climate change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;
Environmental quality: improving the condition and protection of the natural Unchecked environment	
Capability and capacity building: enhancing the capacity within OTs, includin Checked through community engagement and awareness, to support the environmen the short- and long-term.	

Please justify your selection.

Biodiversity: The outcome will be the development of management policies and sustainability options for the long-term protection of the area. The resulting management plan will be directed at improving the biodiversity of the study area and suggest actions to reduce the impact of invasive species.

In-territory knowledge: Local environment and conservation officers will be trained on survey techniques and the community will have a better understanding of threats from invasives, especially feral cats. We will encourage ways of using the site for environmental education by involving local schools in field work or encouraging research projects by the University of Gibraltar.

Section 6 - Project Timeline

Q8. Project timeline (Guidance section 2.2)

Please provide anticipated dates for the start and end of your planned project here. Please use the Darwin Plus Local Project Implementation Timetable Template (which can be downloaded below) to provide a list of the individual activities you have planned for this project, a brief description of what

each activity entails, and the months in which the activities will be carried out. If the project involves only one activity (e.g. a purchase), please still provide project start and end dates (noting estimated times for procurement). <u>Please note that your project will need to be completed by 31 March 2024.</u>

Start date:	End date:	Duration (e.g. 3 months):
01 April 2023	31 March 2024	12 months

Please upload the completed Darwin Plus Local Project Implementation Timetable template with your proposed project activities below.

公	DPLR1	1029	Biodiversity-WHF	Implementatio
	n-Timet	table		

iii 13/02/2023

① 15:18:20

pdf 437.83 KB

Section 7 - Costs

Q9. Costs (Guidance section 2.2 and please read the Finance Guidance)

Please provide a breakdown of costs to be funded through Darwin Plus Local (in GBP).

Are you seeking any matched funding for this project? (Please note that this is optional and there is no requirement to seek matched funding for Darwin Plus Local projects).

⊙ Yes

How much matched funding are you seeking and where from?

Pro-bono time from in-territory partners and international collaborators:

DESCCH - £ GBG - £ Prof James Russell - £ University of Malaga team - £

Budget line	Explanation	Cost in GBP
Staff costs:	UoG staff time involved in the project	
Overhead costs:	Calculated as 15% of staff costs	
Travel & subsistence costs:	Transport and accommodation for invited collaborators	
Operating costs:	Local workshops and fieldwork costs	

Capital equipment:	Camera traps and a laptop	
Consultancy costs:	Project Leader (Prof Julia Fa)	
Total:		_

This section provides more information on the budget to help evaluators understand how you will use the funds you are requesting. You do not need to list all costs, but please list and detail costs of more than £1,000 per item below, under the appropriate budget line.

Details of staff costs over £1,000 (if relevant)

Conservation officer (new recruit). Responsible to the Project Lead. On the ground support for daily project administration. Support for field surveys, data collection, evidence reporting and outreach activities. Project dedication: 300 days FTE,

Details of overhead costs over £1,000 (if relevant):

Calculated as of staff costs.

Details of travel and subsistence costs over £1,000 (if relevant):

Transport and accommodation for international collaborators to attend project meetings and site visits:

Prof James Russell- travel and accommodation from University of Aberdeen (sabbatical 2023) to Gibraltar.

University of Malaga team – transport costs from Malaga to Gibraltar.

Details of operating costs over £1,000 (if relevant):

Local workshops

Fuel for fieldtrips

Aluminium quadrats, bitumen felt squares, line transects, pitfall traps

Details of capital equipment costs over £1,000 (if relevant):

20 camera traps

1 laptop

Details of consultancy costs over £1,000 (if relevant):

Project Lead – Prof Julia Fa is a specialist in animal ecology, habitat and species management. Julia led projects on rats and cats monitoring in Gibraltar in the 90s and more recently in 2021, in collaboration with the Government and NGOs. She will provide overall project guidance and will have a pivotal role in liaising with in-territory partners, NGOs and international collaborators, bringing in international experts to assist in capacity building. Julia is based in the UK but visits Gibraltar on a regular basis as she is associated with the University and is Gibraltarian. Her role will be core.

No Response

If your project budget was prepared in another currency and converted to GBP, please provide the exchange rate, its source, and the date it was accessed:

Other currency:	Exchange rate:	Source of this exchange rate:	Date exchange rate accessed:
No Response	No Response	No Response	No Response

Darwin Plus Local has been created to build capacity and contribute to local economies in-territory.

What % of the total will be spent in the OTs?

If less than 80% of the total project spend is to be spent within the OT(s), please explain why.

The funding spent in consultancy costs (of overall budget) will directly benefit the OT as it will support a specialist Project Lead who will deliver clear in-territory benefits in terms of capacity building, international outreach and project leadership.

Section 8 - Local and National Priorities

Q10. Local and national priorities

Please explain how this project aligns with local and national priorities? You may wish to consider the project in the context of national environmental laws, objectives, strategies, territory specific agreements, action plans or policies.

The project supports:

(1) The Gibraltar Biodiversity Action Plan - Section 6, details the main invasive species found in Gibraltar's terrestrial environment and includes recommendations for their management.

(2) The Gibraltar Nature Reserve (GNR) Management Plan, which places emphasis on the removal of invasive and pest species as a main conservation measure and habitat restoration, including WHF area.

(3) Integrated Rural Management Plan (IRMP) addresses the management of the Natural Environment of HQBF Gibraltar to protect, and where possible, enhance the nature conservation value of military estates in Gibraltar including WHF.

Internationally:

(4) Bonn Convention on the Conservation of Migratory Species of Wild Animals. Gibraltar sits on a migratory hotspot and migratory birds may be impacted by rats and especially cats.

(5) Convention on Biological Diversity (CBD) – Article 8(f): Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, through the development and implementation of plans

or other management strategies; Article 8(h): Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species.

(6) Bern Convention – Article 3: Promote national policies for the conservation of wild flora, wild fauna and natural habitats, with particular attention to endangered and vulnerable species.

Will the project take place on Government owned land or water?

⊙ Yes

Please attach evidence that you have Government support i.e. Letter of Support.

& DPLR1 1029 Biodiversity-WHF LoS

і 14/02/2023

① 12:52:03

pdf 164 KB

Section 9 - Project Risks

Q11. Project Risks

Please demonstrate your consideration of any risks involved in this project and how you intend to manage them. Depending on your project, you may wish to consider:

- Biosecurity risks particularly for projects involving external equipment.
- Safeguarding risks particularly for projects involving vulnerable groups such as children, older people or people with disabilities.

Risk	Mitigation	
Site access delayed	Adhering to the Integrated Rural Management Plan (IRMP), and with the support from DESCCH, we will confirm MOD authorisation to work on the site. Compilation of existing data (Activity 1), a press release and the project website (Activity 7) will be carried out in the interim.	
Data storage	Survey data and photos will be secured in password-protected servers at the University. Daily backups will be scheduled.	
Severe weather	WHF is an exposed area prone to gusty conditions that can make working conditions difficult. We will check forecasts ahead of field work trips and adapt if necessary to avoid any potential health and safety hazards.	

Do you require more fields?

• Yes

Mitigation	
We will show case studies implemented by other OTs. Discussions will be an opportunity to incorporate NGOs and community views on to the programme and agree on acceptable solutions for the control of invasives, especially feral cats. A media marketing strategy will be led by UoG's communications team to create local traction. There will be weekly project updates (estimated 52 overall) on Twitter, Facebook and the project webpage (potential reach: 5,000) and four news items (potential reach: 15,000), including recording a TV programme for the local broadcasting channel.	
No Response	

Section 10 - Terms & Conditions

Q12. Terms and conditions (Guidance section 3.10)

By applying for Darwin Plus Local you are adhering in full to the grant Terms and Conditions in full (available at: https://dplus.darwininitiative.org.uk/apply and as referenced in the Guidance at section 3.10). For information, the Terms and Conditions include requirements for all applicants to (amongst other requirements as per the full Terms and Conditions):

- Uphold a zero tolerance for inaction approach to tackling sexual exploitation, abuse, and harassment.
- Where appropriate, make all reasonable and adequate efforts to address gender inequality and other power imbalances.
- Notify all cases of fraud and theft (whether proven or suspected) relating to the project to the Grant Administrator as soon as they identified.

Please indicate you have read, and understood, and will adhere to the Terms and Conditions.

Checked

If your application is successful: If your project application is successful, the Fund Administrator (NIRAS)

will ask you to provide some financial evidence for due diligence checks before you receive your project grant. (Please see section 3.3 of the Darwin Plus Local Finance Guidance). Please be ready to provide this evidence promptly.

Financial evidence for organisations: Year-end financial statements, the latest management accounts or audited accounts (if you have these).

Financial evidence for individuals: Proof of identity such as a passport, ID card or driving licence and solvency (such as bank statements) and a police check.

Section 11 - Certification

Certification

I certify that, to the best of my knowledge and belief, the statements made in this application are true and the information provided is correct.

Checked

I have the authority to submit an application on behalf of my organisation.

Checked

Name:	Dr Darren Fa
Position in the organisation: (if applicable)	Director of Academic Programmes and Research
Signature (please upload e-signature)	 ▲ <u>DF Signature</u> ᡤ 13/02/2023 ④ 09:55:38 ☑ png 13.54 KB
Date:	14 February 2023

Section 12 - Submission Checklist

Checklist for submission

	Check
have read the Guidance documents, including the "Darwin Plus Local Guidance" and ne "Darwin Plus Local Finance Guidance".	
If my proposed project takes place on public lands or water, I have uploaded a Letter of Support from Government.	Checked

I have uploaded a cover letter that details the information requested in the guidance (Guidance section 4.2 has information on what this cover letter should include).	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked
I have provided actual start and end dates for the project.	Checked
I have provided my summary budget based on UK government financial years i.e. 1 April – 31 March and in GBP in the application form.	Checked
I have uploaded my project implementation timetable using the specific template provided.	Checked
(If copying and pasting into Flexi-Grant) I have checked that all my responses have been successfully copied into the online application form.	Checked
The application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have checked the Darwin Plus website immediately prior to submission to ensure there are no late updates.	Checked
I have read and understood the Privacy Notice on the Darwin Plus website.	Checked

We would like to keep in touch!

Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under Darwin Plus. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share project news. You are free to unsubscribe at any time.

Checked

Data protection and use of personal data

Information supplied in the application form, including personal data, will be used by Defra as set out in the **Privacy Notice**, available from the <u>Forms and Guidance Portal</u>.

This **Privacy Notice must be provided to all individuals** whose personal data is supplied in the application form. Some information may be used when publicising Darwin Plus including project details (usually title, lead partner, project leader, location, and total grant value).

		No. of	UK Financial Year 2023/24											
Activity #	Description (max 25 words)	months	Calendar Year 2023									Calendar Year 2024		
			Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
A1	Compilation of existing data	2												
A2	Assessment and record of vegetation and flora in the study area. Identification and mapping of areas identified from aerial photographs.	9												
A3	Assessment and record of native faunal groups (gastropod molluscs, reptiles, butterflies, ground insects) and bird abundance.	9												
A4	Assessment and record of invasives (cats and rats) numbers and distribution.	9												
А5	Technical meetings. Two general meetings (M3 and M12) and two specific smaller meetings on biodiversity surveys (M6) and invasives monitoring (M9).	4												
A6	In-territory capacity building. Provision of 3 training sessions (M3, M7, M11)	3												
Α7	Community outreach. Two community meetings (M3, M12), 1 public lecture (M12), 4 news items in local TV/radio/press (M1, M5, M8, M12), project website operational (M1)	5												
A8	Site management plan review for WHF	2												